UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,763	06/27/2001	Sunil Podar	062891.0526	4857

5073	7590	11/01/2006	EXAMINER

BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

	EXAMINER
	LEE, ANDREW CHUNG CHEUNG

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/893,763	PODAR ET AL.
	Examiner	Art Unit
	Andrew C. Lee	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE __3__ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 July 2006</u>.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17;19,27,28,29,35,37,38,39,40,41</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>37-41</u> is/are allowed.
6)☐ Claim(s) <u>1-8,12,17,19, and 35</u> is/are rejected.
7)☐ Claim(s) <u>9-11,13-16 and 27-29</u> is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1,17, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Leung et al. (US 6765892 B1) in view of Park et al. (US 5872771).

Regarding claim 1, Leung et al. disclose the limitation of a system for managing

access to IP multicast traffic (recited "the transmission of IP multicast data in a mobile

IP environment" as access to IP multicast traffic, column 3, lines 61 – 62), comprising: a

join request manager within an access router (Fig.3, element 309 multicast router;

column 5, lines 53– 59), the access router comprising a central processing unit (CPU)

(recited "central processing unit (CPU)", Fig. 9, element 1162, column 9, line 10 – 13),

and a memory unit (recited " memory", Fig. 9, element 1162, column 9, line 26), and

operable to replicate multicast traffic flows for communication to one or more user

devices within user systems coupled to the access router using a link (recited "multicast

data packets must be replicated for transmission to multiple receivers" as operable to

replicate multicast traffic flows for communication to one or more user devices, Fig. 3,

column 5, lines 53 – 67), the join request manager operable to: receive a request to

receive a multicast traffic flow, the request being received from one of the user devices

within one of the user systems (recited " in response to receiving the joint IGMP report"

as receive a request to receive a multicast traffic flow, column 5, lines 57 – 64); and

Leung et al. do not disclose explicitly denying the request if a system metric is above a

threshold by dropping one or more packets containing the request. Park et al. disclose

the limitation of denying the request if a system metric is above a threshold by dropping

one or more packets containing the request (recited "the cell loss rate calculated is

larger than the target cell loss rate requested by the (n+1)th connection, the connection

is rejected" as denying the request if a system metric ("cell loss rate calculated" cited as

system metric) is above a threshold (target cell loss cited as threshold) by dropping one

or more packets containing the request; column 4, lines 1 – 4). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

Leung et al. to include denying the request if a system metric is above a threshold by

dropping one or more packets containing the request such as that taught by Park et al.

in order to provide an adaptive connection admission control method using

measurement and estimation of traffic in active device (as suggested by Park et al., see

column 1, lines 7 – 9).

Regarding claims 17, 35, Leung et al. disclose the limitation of the system of

claimed wherein the request is an Internet group management protocol (IGMP) join

request (recited "Internet group management protocol (IGMP)", column 2, lines 54 –

61).

3.   Claims 19, 8, 12, are rejected under 35 U.S.C. 103(a) as being unpatentable

over Leung et al. (US 6765892 B1) and Park et al. (US 5872771) as applied to claims 1,

17, 35 above, and further in view Gupta et al. (US 6577599 B1).

Regarding claim 19, Leung et al. disclose the limitation of a system for managing

access to IP multicast traffic (recited "the transmission of IP multicast data in a mobile

IP environment" as access to IP multicast traffic, column 3, lines 61 – 62), comprising:

receiving a request to receive a multicast traffic flow, the request being received from a

user device within a user system coupled to an access router using a link (recited " in

response to receiving the joint IGMP report" as receive a request to receive a multicast

traffic flow, column 5, lines 57 – 64; recited "establishes a data path for multicast data

transmission, enabling data packets to be replicated by a multicast router coupled to the

Foreign Agent" as request being received from a user device within a user system

coupled to an access router using a link; column 5, lines 54 – 56); the access router

comprising a central processing unit (CPU) and a memory unit (recited " master central

processing unit" as CPU, "memory such as RAM and /or ROM" as memory unit; column

9, lines 10 – 28); and Leung et al. do not disclose explicitly denying the request if a

system metric is above a threshold by dropping one or more packets containing the

request. Park et al. disclose the limitation of denying the request if a system metric is

above a threshold by dropping one or more packets containing the request (recited "the

cell loss rate calculated is larger than the target cell loss rate requested by the (n+1)th

connection, the connection is rejected" as denying the request if a system metric ("cell

loss rate calculated" cited as system metric) is above a threshold (target cell loss cited

as threshold) by dropping one or more packets containing the request; column 4, lines 1

– 4). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Leung et al. to include denying the request if a system

metric is above a threshold by dropping one or more packets containing the request

such as that taught by Park et al. in order to provide an adaptive connection admission

control method using measurement and estimation of traffic in active device (as

suggested by Park et al., see column 1, lines 7 – 9). Leung et al. and Park et al. do not

disclose explicitly the system metric is an aggregate multicast bandwidth output of the

access router. Gupta et al. disclose the limitation of the system metric is an aggregate

multicast bandwidth output of the access router (recited "aggregate limit called the

"session bandwidth" as the system metric is an aggregate multicast bandwidth; column

4, lines 22 – 28). It would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Leung et al. and Park et al. to include the system

metric is an aggregate multicast bandwidth output of the access router such as that

taught by Gupta et al. in order to provide a method and apparatus for efficient and

reliable multicasting in a network environment (as suggested by Gupta et al., see

column 6, lines 15 – 16).

Regarding claims 8, 12, Leung et al. and Park et al. do not disclose explicitly the

system of claimed wherein the system metric is an aggregate multicast bandwidth over

a link coupling, the user system to the access router. Gupta et al. disclose the limitation

of the system of claimed wherein the system metric is an aggregate multicast bandwidth

over a link coupling, the user system to the access router (recited "aggregate limit called

the "session bandwidth to be divided among all the receivers" as the system metric is an

aggregate multicast bandwidth over a link coupling, the user system to the access

router; column 4, lines 22 – 28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Leung et al. and Park et al. to include the system of claimed wherein the system metric is an aggregate multicast bandwidth over a link coupling, the user system to the access router such as that taught by Gupta et al. in order to provide a method and apparatus for efficient and reliable multicasting in a network environment (as suggested by Gupta et al., see column 6, lines 15 – 16).

4.   Claims 2, 3, 4, 5, 6, 7, are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung et al. (US 6765892 B1), Park et al. (US 5872771) and Gupta et al. (US 6577599 B1) as applied to claims 1, 17, 35, 19, 8, 12, above, and further in view of Sipple et al. (US 6405327 B1).

Regarding claim 2, Leung et al. disclose the limitation of a system for managing access to IP multicast traffic (recited "the transmission of IP multicast data in a mobile IP environment" as access to IP multicast traffic, column 3, lines 61 – 62), Park et al. disclose the limitation of a system metric (recited "operational status information for each output port" as system metric, column 2, lines 61, column 12, lines 42 – 53). Leung et al., Park et al. and Gupta et al. do not disclose expressly the system of claimed wherein the system metric is the utilization of the CPU. Sipple et al. disclose the limitation of the system of claimed wherein the system metric is the utilization of the CPU (recited "processor utilization" as utilization of the CPU, Fig. 6, element 1110, processor utilization, column 3, lines 18 – 26). It would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify Leung et al.,Park et

al. and Gupta et al. to include the system of claimed wherein the system metric is the

utilization of the CPU such as that taught by Sipple et al. in order to provide resource

efficient means for monitoring the performance of various portions of a computer system

(as suggested by Sipple et al., see column 1, lines 9 – 11).

Regarding claim 3, Leung et al. disclose the limitation of a system for

managing access to IP multicast traffic (recited "the transmission of IP multicast data in

a mobile IP environment" as access to IP multicast traffic, column 3, lines 61 – 62), Park

et al. disclose the limitation of a system metric (recited "operational status information

for each output port" as system metric, column 2, lines 61, column 12, lines 42 – 53).

Leung et al., Park et al. and Gupta et al. do not disclose expressly the system of

claimed wherein the utilization of the CPU is measured in terms of a percentage of a

maximum processing capacity of the CPU. Sipple et al. disclose the limitation of the

system of claimed wherein the utilization of the CPU is measured in terms of a

percentage of a maximum processing capacity of the CPU (recited "processor

utilization" as utilization of the CPU, Fig. 6, element 1110, processor utilization, column

3, lines 18 – 26; recited "utilization reaching the 100 percent performance" as a

percentage of a maximum processing capacity of the CPU, column 6, 19 – 29). It would

have been obvious to one of ordinary skill in the art at the time the invention was made

to modify Leung et al., Park et al. and Gupta et al. to include the system of claimed

wherein the utilization of the CPU is measured in terms of a percentage of a maximum

processing capacity of the CPU such as that taught by Sipple et al. to provide resource

efficient means for monitoring the performance of various portions of a computer system

(as suggested by Sipple et al., see column 1, lines 9 – 11).

Regarding claim 4, Leung et al. disclose the limitation of a system for managing

access to IP multicast traffic (recited "the transmission of IP multicast data in a mobile

IP environment" as access to IP multicast traffic, column 3, lines 61 – 62), Park et al.

disclose the limitation of a system metric (recited "operational status information for

each output port" as system metric, column 2, lines 61, column 12, lines 42 – 53).

Leung et al., Park et al. and Gupta et al. do not disclose expressly the system of

claimed wherein utilization of the CPU above the threshold impairs operation of the

access router. Sipple et al. disclose the limitation of the system of claimed wherein

utilization of the CPU above the threshold impairs operation of the processing system

(recited "displaying on a computer operator console summarizing any warning and/or

actual performance problems detected" as utilization of the CPU above the threshold

impairs operation of the processing system, column 6, lines 19 – 35). It would have

been obvious to one of ordinary skill in the art at the time the invention was made to

modify Leung et al., Park et al. and Gupta et al. to include the system of claimed

wherein utilization of the CPU above the threshold impairs operation of the access

router such as that taught by Sipple et al. in order to provide resource efficient means

for monitoring the performance of various portions of a computer system (as suggested

by Sipple et al., see column 1, lines 9 – 11).

Regarding claim 5, Leung et al. disclose the limitation of a system for managing

access to IP multicast traffic (recited "the transmission of IP multicast data in a mobile

IP environment" as access to IP multicast traffic, column 3, lines 61 – 62), Park et al.

disclose the limitation of a system metric (recited "operational status information for

each output port" as system metric, column 2, lines 61, column 12, lines 42 – 53).

Leung et al., Park et al. and Gupta et al. do not disclose expressly the system of

claimed wherein the system metric is the usage of the memory unit. Sipple et al.

disclose the limitation of the system of claimed wherein the system metric is the usage

of the memory unit (recited "memory utilization" as usage of the memory unit, Fig. 6,

element 1106, column 7, lines 38 – 48). It would have been obvious to one of ordinary

skill in the art at the time the invention was made to modify Leung et al., Park et al. and

Gupta et al. to include the system of claimed wherein the system metric is the usage of

the memory unit such as that taught by Sipple et al. in order to provide resource efficient

means for monitoring the performance of various portions of a computer system (as

suggested by Sipple et al., see column 1, lines 9 – 11).

Regarding claim 6, Leung et al. disclose the limitation of a system for managing

access to IP multicast traffic (recited "the transmission of IP multicast data in a mobile

IP environment" as access to IP multicast traffic, column 3, lines 61 – 62), Park et al.

disclose the limitation of a system metric (recited "operational status information for

each output port" as system metric, column 2, lines 61, column 12, lines 42 – 53).

Leung et al., Park et al. and Gupta et al. do not disclose expressly the system of

claimed wherein the usage of the memory unit is measured in terms of a percentage of

a maximum storage capacity of the memory unit. Sipple et al. disclose the limitation of

the system of claimed wherein the usage of the memory unit is measured in terms of a

percentage of a maximum storage capacity of the memory unit (recited "memory is fully

utilized 100 percent" as a percentage of a maximum storage capacity of the memory

unit, Fig. 6, element 1106, column 6, lines 38 – 48). It would have been obvious to one

of ordinary skill in the art at the time the invention was made to modify Leung et al.,

Park et al. and Gupta et al. to include the system of claimed wherein the usage of the

memory unit is measured in terms of a percentage of a maximum storage capacity of

the memory unit such as that taught by Sipple et al. in order to provide resource efficient

means for monitoring the performance of various portions of a computer system (as

suggested by Sipple et al., see column 1, lines 9 – 11).

Regarding claim 7, Leung et al. disclose the limitation of a system for managing

access to IP multicast traffic (recited "the transmission of IP multicast data in a mobile

IP environment" as access to IP multicast traffic, column 3, lines 61 – 62), Park et al.

disclose the limitation of a system metric (recited "operational status information for

each output port" as system metric, column 2, lines 61, column 12, lines 42 – 53).

Leung et al., Park et al. and Gupta et al. do not disclose expressly the system of

claimed wherein usage of the memory unit above the threshold impairs operation of the

access router. Sipple et al. disclose the limitation of the system of claimed wherein

usage of the memory unit above the threshold impairs operation of the processing

system (column 6, lines 59 – 60; column 7, lines 5 – 10). It would have been obvious to

one of ordinary skill in the art at the time the invention was made to modify Leung et al.,

Park et al. and Gupta et al. to include the system of claimed wherein usage of the

memory unit above the threshold impairs operation of the access router such as that

taught by Sipple et al. in order to provide resource efficient means for monitoring the

performance of various portions of a computer system (as suggested by Sipple et al.,

see column 1, lines 9 – 11).

Allowable Subject Matter

5.   Claims 37, 38, 39, 40, 41 are allowed.

Claims 9 – 11, 13 –16, 27 – 29 are objected to as being dependent upon a

rejected base claim, but would be allowable if rewritten in independent form including all

of the limitations of the base claim and any intervening claims.

Response to Arguments

6.   Applicant's arguments with respect to claims 1 – 17, 19, 27, 28, 29, 35, 37, 38,

39, 40, 41 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-

3131. The examiner can normally be reached on Monday through Friday from 8:30am -

5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ACL   Oct 26, 2006

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER